

MONTANA LEGISLATIVE HISTORY

Chapter 501 19 85

Bill H _____ S 369 Original bill & history C

H. Committee on Natural Resources

Hearing Date(s) Mar 18 ☒ C

_____ C

_____ C

_____ C

Date Out Mar 18 ☒ C

S. Committee on Natural Resources

Hearing Date(s) Feb 18 ☒ C

Feb 20 ☒ C

_____ C

_____ C

Feb 21 ☒ C

Did this bill originate in an interim committee? Yes No

Committee _____

Report _____

SENATE FINAL STATUS

DESIGNATION OF CONTROLLED GROUND WATER AREA
BY REQUEST OF DEPT. OF NATURAL RESOURCES

2/08 INTRODUCED
2/09 REFERRED TO NATURAL RESOURCES
2/20 HEARING
2/22 COMMITTEE REPORT-BILL PASS AS AMENDED
2/25 2ND READING PASS
2/27 3RD READING PASS

TRANSMITTED TO HOUSE
3/07 REFERRED TO NATURAL RESOURCES
3/13 HEARING
3/14 COMMITTEE REPORT-BILL CONCURRED
3/16 2ND READING CONCURRED
3/19 3RD READING CONCURRED

RETURNED TO SENATE
3/21 SIGNED BY PRESIDENT
3/22 SIGNED BY SPEAKER

3/22 TRANSMITTED TO GOVERNOR
3/26 SIGNED BY GOVERNOR

CHAPTER NUMBER 189 EFFECTIVE DATE: 10/01/80

SB 366 INTRODUCED BY CHRISTIAENS, R. MANNING, ET AL.
INSUR. PREM. PART OF FIREFIGHTER'S COMPENSATION FOR
CALCULATING PENSION

2/08 INTRODUCED
2/09 REFERRED TO STATE ADMINISTRATION
2/12 FISCAL NOTE REQUESTED
2/18 FISCAL NOTE RECEIVED
2/20 HEARING
2/21 COMMITTEE REPORT-BILL DO PASS
2/23 2ND READING INDEFINITELY POSTPONED

SB 367 INTRODUCED BY HALLIGAN, BENGTSON, ET AL.
5 PERCENT STATEWIDE HOTEL/MOTEL TAX

2/08 INTRODUCED
2/09 REFERRED TO TAXATION
2/11 FISCAL NOTE REQUESTED
2/15 FISCAL NOTE RECEIVED
2/21 HEARING
3/13 TABLED IN COMMITTEE

SB 368 INTRODUCED BY MOHAR, LORY, BLAYLOCK, ET AL.
PROVIDING A MEANS TO REGISTER AND VOTE ON ELECTION
DAY

2/08 INTRODUCED
2/09 REFERRED TO STATE ADMINISTRATION
2/11 FISCAL NOTE REQUESTED
2/15 FISCAL NOTE RECEIVED
2/19 HEARING
2/20 ADVERSE COMMITTEE REPORT
2/20 BILL KILLED

SB 369 INTRODUCED BY NEUMAN, ELLISON, ECK, ET AL.

SENATE FINAL STATUS

DAM SAFETY PROGRAM

2/08	INTRODUCED		
2/09	REFERRED TO NATURAL RESOURCES		
2/12	FISCAL NOTE REQUESTED		
2/16	FISCAL NOTE RECEIVED		
2/18	HEARING		
2/21	COMMITTEE REPORT-BILL PASS AS AMENDED		
2/23	2ND READING PASS AS AMENDED	34	9
2/25	3RD READING PASS	44	4
	TRANSMITTED TO HOUSE		
2/27	REFERRED TO NATURAL RESOURCES		
3/18	HEARING		
3/25	COMM REPORT-BILL CONCURRED AS AMENDED		
3/25	STATEMENT OF INTENT ATTACHED		
3/30	2ND READING CONCURRED AS AMENDED	92	2
4/01	3RD READING CONCURRED	96	4
	RETURNED TO SENATE WITH AMENDMENTS		
4/03	2ND READING AMENDMENTS CONCURRED	50	0
4/05	3RD READING AMENDMENTS CONCURRED	43	2
4/12	SIGNED BY PRESIDENT		
4/15	SIGNED BY SPEAKER		
4/15	TRANSMITTED TO GOVERNOR		
4/16	SIGNED BY GOVERNOR		
	CHAPTER NUMBER 501 EFFECTIVE DATE: 10/01/85		

370 INTRODUCED BY VAN VALKENBURG, MCCALLUM RECOMMENDATIONS OF THE SALARY COMMISSION BY REQUEST OF MONTANA SALARY COMMISSION

2/08	INTRODUCED		
2/09	REFERRED TO FINANCE & CLAIMS		
2/11	FISCAL NOTE REQUESTED		
2/14	FISCAL NOTE RECEIVED		
2/21	HEARING		
2/25	COMMITTEE REPORT-BILL PASS AS AMENDED		
2/26	2ND READING PASS	30	17
2/27	3RD READING PASS	33	17
	TRANSMITTED TO HOUSE		
3/06	REFERRED TO APPROPRIATIONS		
3/26	HEARING		
4/01	COMM REPORT-BILL CONCURRED AS AMENDED		
4/01	2ND READING NOT CONCURRED	68	30
	RETURNED TO SENATE		
4/17	RECONSIDERATION		
	RETURNED TO HOUSE		
4/19	2ND READING CONCURRED AS AMENDED	61	37
4/22	3RD READING CONCURRED	58	38
	RETURNED TO SENATE WITH AMENDMENTS		
4/24	ON MOTION RULES SUSPENDED	43	2
	TO ACCEPT TO CONSIDER HOUSE AMENDMENTS		
4/24	2ND READING AMENDMENTS CONCURRED	50	0
4/25	3RD READING AMENDMENTS CONCURRED	37	11

FISCAL NOTE

Form BD-15

In compliance with a written request received February 13, 19 85, there is hereby submitted a Fiscal Note for S.B. 369 pursuant to Title 5, Chapter 4, Part 2 of the Montana Code Annotated (MCA). Background information used in developing this Fiscal Note is available from the Office of Budget and Program Planning, to members of the Legislature upon request.

DESCRIPTION OF PROPOSED LEGISLATION:

Requires any person proposing to construct a dam or reservoir with a capacity of 50 acre-feet or more to apply to the department for a determination of whether the dam is a high-hazard dam.

ASSUMPTIONS:

1. Approximately 100 applications for dams of 50 acre-feet or more will be received each year.
2. Three to five of these proposed dams will be determined to be high-hazard structures.
3. The department will inspect about 20 high-hazard dams annually at an estimated average cost of \$1,500 to the dam owner. Other inspections will be conducted, but without reimbursement.
4. Reviews and inspections will begin in FY1987.

FISCAL IMPACT:

	FY1986			FY1987		
Revenue:	Current	Proposed	Increase	Current	Proposed	Increase
Inspection Fees	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ 30,000	\$ 30,000
Expenditures:						
Personal Services	\$ -0-	\$ 12,755	\$ 12,755	\$ -0-	\$ 74,374	\$ 74,374
Operating Expenses	-0-	3,200	3,200	-0-	43,000	43,000
Total Increased Costs	\$ -0-	\$ 15,955	\$ 15,955	\$ -0-	\$ 117,374	\$ 117,374
General Fund	\$ -0-	\$ 15,955	\$ 15,955	\$ -0-	\$ 87,374	\$ 87,374

AFFECT ON COUNTY OR OTHER LOCAL REVENUE OR EXPENDITURES:

Passage of this legislation would decrease the involvement of county attorneys in the enforcement of existing dam safety laws as this legislation transfers jurisdiction to DNRC.

LONG-RANGE EFFECTS OF PROPOSED LEGISLATION:

Future fiscal year revenues and expenses would continue at about the same level as FY 1987.

David L. Hunter

BUDGET DIRECTOR
Office of Budget and Program Planning

Date: Feb 16, 1985
56369

Senator Halligan questioned what the permitting procedure is now and how it is determined that notice is properly given. Senator Gage explained at the present time, oil and gas companies are not required to give notice to surface owners. Senator Tveit then explained this was the purpose of SB258. Senator Tveit feels SB258 will make the oil companies and surface owners work together.

Senator Halligan moved the committee pass consideration on SB258 until a later date. The motion carried.

CONSIDERATION OF SB369: Senator Neuman, sponsor of SB369, stated Montana's current law regarding dam safety is archaic. Montana is currently under pressure from the federal government to implement a dam safety act. Senator Neuman feels Montana should be attentive to unsafe dams before a tragedy occurs. SB369 provides new laws relating to dams in the areas of approving permits, structure and enforcement. The bill also provides for inspections and emergency repairs, permit cancellation, and penalties.

PROPONENTS: Mr. Kim Kelly, representing the Montana Water Development Association, stated the first bill regarding dam safety was introduced in 1973. The Montana Water Development Association supported the 1973 bill and every bill introduced since. The irrigation districts also support the bill. Mr. Kelly informed the committee that dam safety is a serious consideration in Montana, because inspections of dams have indicated Montana currently has 36 dams, located in 18 counties, which are unsafe. SB369 will allow five years from the time of inspection, for these dams to be repaired. Mr. Kelly submitted a letter he received from Glen H. Loomis, U. S. Department of Agriculture (Exhibit 11) and written testimony supporting SB369 from Women in Farm Economics (Exhibit 12).

Mr. Keith Williams, representing the National Water Resources Association, stated his organization is very concerned with dam safety in Montana. Many dams in Montana are not considered to be high-hazard dams until residents begin to occupy the area below the dam. At that time, the dam's status does change to high-hazard. Mr. Williams feels Montana must develop a program to meet dam safety requirements.

Mr. Roger Foster, a member of the Montana Water Development Association, stated Montana's current law regarding dam safety can only react to hazardous situations rather than work to prevent these situations from starting. Mr. Foster stated

deference is not a cost-saving effort. Mr. Foster feels savings can be realized through the maintenance programs provided by SB369. Of all the dams inspected, almost all require improvements. Mr. Foster stated 50 percent of the dam failures in Montana are due to a lack of maintenance. SB369 will provide for classification of dams, a permitting system, on-going inspections of dams, emergency procedures and enforcement. Mr. Foster feels passage of this bill will not result in the expenditure of any more money than would otherwise be spent.

Mr. Ted Doney, an attorney and former director of the Department of Natural Resources and Conservation, helped in the drafting of the legislation. Mr. Doney stated the current law contains no enforcement provision and, therefore, is inadequate. Mr. Doney explained under the current statutes, dam owners could be liable for injuries or deaths incurred as the result of a disaster. If SB369 is passed and the State of Montana puts its seal of approval on a dam, the State is responsible.

Mr. Russ Brown, representing Northern Plains Resource Council, stated the bill is necessary for high-hazard dams.

Mr. George Ochenski, representing the Environmental Information Center, stated he is a proponent of SB369.

Mr. Dennis Hemmer, representing the Department of State Lands, submitted proposed amendments (Exhibit 13) and suggested the bill exempt dams covered by the Hard Rock Mining Act.

Mr. Gary Fritz, representing the Department of Natural Resources and Conservation, stated it is important that Montana have a responsible dam safety act. Mr. Fritz feels passage of this bill will not create substantial additional expenses for Montana.

There being no further proponents and no opponents, the hearing was opened to questions from the committee.

Upon question from Senator Shaw, Mr. Foster stated that basic dam inspections would cost between \$1,000 - \$1,500.

Upon question from Senator Halligan, Mr. Doney explained the Department needs flexibility to require additional data from dam owners if they deem it to be necessary.

Senator Gage had questions regarding Section 16, lines 18-19. Senator Gage feels that since a person may not be aware he is in violation for a substantial period of time, each day that he is in violation should not be considered a separate offense.

Mr. Doney stated he did not have any objections to amending this bill.

Senator Anderson inquired what funds would be available from the DNRC for districts concerned with dam safety. Mr. Fritz stated the Water Development Program would be a good source of funds for those districts requiring assistance. However, these districts would be required to compete with others who have applied for the same funds.

Upon question from Senator Weeding, Mr. Fritz stated before these funds are available, certain eligibility tests would have to be met.

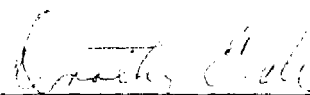
Chairman Eck questioned Mr. Doney about implementing a notification process into the bill for residents moving below a dam that is considered to be a high-hazard dam. Chairman Eck was concerned this situation might make the dam owner liable for any accidents. Mr. Doney stated this could be a problem. One possibility suggested by Mr. Doney would be to zone the area as a high-hazard area.

There being no further questions from the committee, the hearing on SB369 was closed.

ANNOUNCEMENTS: Chairman Eck asked the committee members who have problems with the proposed amendments to SB259 to discuss them with Senator Tveit before the committee meeting on Wednesday, February 20, 1985.

Anyone who has amendments to SB277, the Legacy Program, should discuss these with Mr. Bob Thompson. Chairman Eck intends to allow one-half hour at the beginning of the meeting on Wednesday, February 20, 1985, to discuss the Legacy Program.

There being no further business to come before the committee, the meeting was adjourned.



Senator Dorothy Eck, Chairman

Natural Resources

COMMITTEE

48th LEGISLATIVE SESSION -- 1985

Date 02/25/85SENATE
SEAT

#

NAME	PRESENT	ABSENT	EXCUSED
<u>ECK, Dorothy (Chairman</u>	✓		
<u>HALLIGAN, Mike (Vice Chairman)</u>	✓		
<u>WHEEDING, Cecil</u>	✓		
<u>MOHAR, John</u>	✓		
<u>DANIELS, M. K.</u>	✓		
<u>FULLER, David</u>	/		
<u>CHRISTIAENS, Chris</u>	✓		
<u>TVEIT, Larry</u>	✓		
<u>GAGE, Delwyn</u>	✓		
<u>ANDERSON, John</u>	✓		
<u>SHAW, James</u>	✓		
<u>HARDING, Ethel</u>	✓		

Each day attach to minutes.

DATE

C31855

COMMITTEE ON

VISITORS' REGISTER

NAME	REPRESENTING	BILL #	Check One	
			Support	Oppose
Ronald D. Cecil	Cardinal Drilling	SB 410	X	
W. VANDEGRAAFF	Montana Petroleum Assn.	SB 410	X	
DON GARRITY	BOARD OF OIL & GAS	SB 410	X	
Henry Anderson	Shelton Oil & Gas Co.	SB 410	X	
Q. Anderson	"	SB 410	X	
Janet Ellis	MT Audubon Council	SB 410		X
CHRIS Dusen	Kimrock Drilling	SB 410	X	
Russell Thomas	1st State Bank	SB 410	X	
R. H. Ellis	Helena Valley Irr. Dist.	369	X	
Susan Cunningham	Mt. Sierra Club	SB 410		X
RONALD SCHORFELD	HELENA VALLEY IRR. DIST.	369	X	
Bob Leggett	Mont. W. L. Dev.	269	X	
John T. Moore	Solar Petroleum	410	X	
W. H. Hein	Mont. Wildlife Fed.	410		X
Tiger Foster	Mont. Water Res. Assn.	369	X	
Dennis Hammer	State Lands	326/369	X	
AS HANSON	MT. TRAIL COUNCIL	369	X	
Keith Williams	Mont. Water Res. Assn.	369	X	
Don Reed	Helena, M.F.I.C.	SB 410		X
Paul Smith	Smelter	SB 410		X
Tom Kelly	Mont. Water Res. Assn.	SB 369	✓	
Don Rickman	Board of B. & N.	SB 410	✓	
Pat Malby	Mont. O & G Assn.	SB 410	✓	
Russ Brown	NIPRC	410		X
"	"	SB 369	X	
G. B. Cook	Shelton	410	X	

(Please leave prepared statement with Secretary)

CA1805

VISITORS' REGISTER

(Please leave prepared statement with Secretary)



United States
Department of
Agriculture

Soil
Conservation
Service

Federal Building, Room 443
10 East Babcock Street
Bozeman, MT 59715

February 4, 1985

K.M. Kelly
Executive Secretary
Montana Water Development Association
P.O. Box 5744
Helena, MT 59604

Dear Mr. Kelly:

As you requested, following is the information pertaining to SCS policy on dam safety. The following four paragraphs are national policy:

"SCS supports strong State dam-safety programs. A strong State dam-safety program is imperative because SCS lacks operation and maintenance (O&M) authority and does not have continuing responsibility for the nonfederal dams installed under SCS programs. It is SCS policy to complement and not compete with State dam safety programs."

"Each state conservationist is to assist the State in developing a strong dam safety program as needed."

"The owner of a dam is responsible for potential hazards created by the dam. The States are responsible for safeguarding the lives and property of their citizens. SCS is responsible for making sure that the assistance it provides for dams is technically sound and meets applicable state regulations and criteria."

"Each state conservationist is to establish needed working arrangements with the State for SCS assistance in maintaining a strong State dam-safety program. It is recognized that a few years may be required for some States to implement such a program. State conservationists are to consider progress being made by their respective states in determining whether or not to continue technical and financial assistance for the installation of inventory-type dams."

SCS in Montana is prepared to institute a policy of phasing out assistance on dams if no progress is made by the State during the 1985 legislative session in instituting an acceptable dam safety program. Our policy will be: "In 1986, SCS will no longer assist in planning new dams, but will continue to provide design, repair, rehabilitation, and construction inspection assistance. In 1987 SCS will no longer provide design assistance on new construction, but will continue to provide repair, rehabilitation and construction



The Soil Conservation Service
is an agency of the
Department of Agriculture

SENATE NATURAL RESOURCES COMMITTEE

EXHIBIT NO. 11

DATE FEB 18 1985

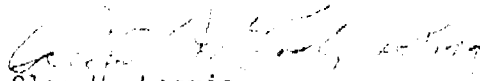
BILL NO. SB 264

K.M. Kelly, February 4, 1985

Page 2

inspection assistance on dams for which SCS provided initial engineering assistance. In 1988 SCS will no longer provide any technical assistance to any dam except where a prior written agreement exists committing such assistance.

Sincerely,


Glen H. Loomis
State Conservationist



WIFE Women Involved in Farm Economics

NAME Jo Brunner COMMITTEE S.N. RES. 3

ADDRESS 1469 Kodiak Road, Helena DATE 2/18/85

REPRESENT Women Involved in Farm Economics BILL NO. SB369

SUPPORT X AMEND OPPOSE

Mr. Chairman, members of the committee, for the record, my name is

Jo Brunner and I represent the members of the Women Involved in Farm Economics organization in this testimony on SB 369.

Mr. Chairman, W.I.F.E. is in support of SB 369. We believe that it is more than adequate in its new provisions to the existing laws to satisfy concerns relative to dam safety and inspections and for the necessary rules of new construction.

We have a concern, however, for dams that were constructed in a determined, and safe manner and were not considered high hazard until development below the dam appeared. We believe that such situations should be taken into account, and although we realize that such matters are better provided for in other sections of law, we wish to go on record as being concerned of this matter.

We ask a do pass on SB 369.

Thank you.

SENATE NATURAL RESOURCES COMMITTEE

EXHIBIT NO. 13

DATE 2/18/85

BILL NO. SB369

DEPARTMENT OF STATE LANDS'

PROPOSED AMENDMENT TO S.B. 369

1. Page 5, line 10

Following: "Exemptions."

Insert: "The provisions of 85-15-102(2) and (3), 85-15-103, and this act do not apply to dams subject to a permit issued pursuant to 82-4-335 for the period during which the dam is subject to the permit."

SENATE NATURAL RESOURCES COMMITTEE

EXHIBIT NO. 13

DATE July 1, 1985

BILL NO. 369

MINUTES OF THE MEETING
SENATE NATURAL RESOURCES COMMITTEE
MONTANA STATE SENATE
February 20, 1985

The eleventh meeting of the Senate Natural Resources Committee was called to order at 12:30 p.m., February 20, 1985, by Chairman Dorothy Eck in Room 405, State Capitol, Helena, Montana.

ROLL CALL: All members were present.

ACTION ON SB 369: The amendments that were presented to the committee at the last meeting were reviewed by Bob Thompson, staff researcher. He said this bill and the proposed amendments were proposed by the Department of State Lands to exempt those dams that were subject to a permit issued under the Hardrock Reclamation Act. The exemption was agreed to by Senator Neuman and supported by Mr. Doney after the meeting on Monday.

Senator Shaw moved the amendments.

Discussion was called for. Senator Mohar stated he hoped by not including tailings ponds in this bill, the Department would do everything that they can do in the permitting process to insure these tailings pond enclosures are adequately inspected.

Dennis Hemmer, Department of State Lands, said the reason for the amendment is because one of the problems they have run into is the tailings ponds are somewhat different than the dams you are dealing with. You do not want a tailings dam to spill. You are looking at a different type of dam and the stress factors on it are different. The situation you get into is that the dam is designed for what it is intended to do. Once it is out from under there, and it is still impounding water, which most of them that they are getting into now won't be, then it would still fall under the jurisdiction of this.

Senator Gage asked if the tailings dams were high hazard dams.

Dennis Hemmer said he is not aware of any that are currently under permit that fall under that criteria, but there are some that are grandfathered from the Hardrock Act that are.

Senator Weeding asked if they were not told the dams which were being exempted are being covered under the Hardrock legislation.

Dennis Hemmer said the dams which were not being covered are presently covered by the Water Quality Act, and there is also a public safety provision presently in the Hardrock Act. If HB 698 passes it will reinforce this.

Senator Mohar asked if, in relation to this, on the dams that the Department of State Lands authorizes and the Department of Health has authority over, do they employ engineers and have design and safety checks.

Dennis Hemmer said he believes they adequately cover them.

Senator Christiaens asked the researcher, Bob Thompson, to assure this bill meets the requirements for dam safety standards which must be in place by 1988.

Bob Thompson said he does not know the answer to that.

Senator Eck said she is sure that is what Senator Neuman was working for, and it does meet that criteria.

Question was called on the amendments to SB 369. Motion passed unanimously that the amendments be accepted.

Senator Fuller moved that SB 369 DO PASS AS AMENDED. Motion passed with Senator Shaw voting "no."

ACTION ON SB 258: Exhibit 2 was presented and discussed. Bob Thompson walked the committee through the amendments.

He said one change which has been made is Section 12 of the amendment page. Senator Tveit recommended they again insure the oil and gas developer or operator make an effort to notify the surface owner; thus, in Title 82, Chapter 11, Section 122, the sentence is added (see amendment 12, underlined material). This amendment was agreed upon between Senator Tveit and Mr. Mile of the Oil and Gas Conservation Division.

Senator Tveit reviewed how the amendments were prior to the change, and said there was a problem of the owner being notified.

Senator Tveit moved the amendments.

Senator Halligan questioned the fact when the operator of the land was different than the surface owner.

Senator Tveit said it only addresses the surface owner.

Senator Gage responded to Senator Halligan's question and said there is no way of addressing that, because the leases may or may not be on file, so the contractor has no way of knowing who the person farming the property would be, but they could find out the owner of the land.

Question was called on the amendments. Motion passed.

Senator Tveit MOVED THE BILL AS AMENDED.

ROLL CALL

Natural Resources

COMMITTEE

48th LEGISLATIVE SESSION -- 1985

Date 2-20-85

SENATE
SEAT
#

NAME	PRESENT	ABSENT	EXCUSED
ECK, Dorothy (Chairman	X		
HALLIGAN, Mike (Vice Chairman)	X		
D WHEELING, Cecil	X		
MOHAR, John	X		
DANIELS, M. K.	X		
FULLER, David	X		
CHRISTIAENS, Chris	X		
TVEIT, Larry	X		
GAGE, Delwyn	X		
ANDERSON, John	X		
SHAW, James	X		
HARDING, Ethel	X		

Each day attach to minutes.

Proposed amendment to SB 369:

1. Page 5, line 10

Following: "Exemptions."

Insert: "The provisions of 85-15-102(2) and (3), 85-15-103, and this act do not apply to dams subject to a permit issued pursuant to 82-4-335 for the period during which the dam is subject to the permit."

SENATE NATURAL RESOURCES COMMITTEE

EXHIBIT NO. 1

DATE 022085

BILL NO. SB369

STANDING COMMITTEE REPORT

FEBRUARY 21, 1985

MR. PRESIDENT

We, your committee on SENATE NATURAL RESOURCES
having had under consideration SENATE BILL No. 369
FIRST reading copy (WHITE)
color

DAM SAFETY PROGRAM

Respectfully report as follows: That SENATE BILL No. 369

be amended as follows:

1. Page 3, line 10.

Following: "Exemptions."

Insert: "The provisions of 85-15-102(2) and (3), 85-15-103, and this act do not apply to dams subject to a permit issued pursuant to 82-4-335 for the period during which the dam is subject to the permit."

AND, AS AMENDED

DO PASS

~~XXXXXXXXXX~~

SENATOR DOROTHY ECK

Chairman.

MINUTES OF THE MEETING
NATURAL RESOURCES COMMITTEE
MONTANA STATE
HOUSE OF REPRESENTATIVES

March 18, 1985

The meeting of the Natural Resources Committee was called to order by Chairman Dennis Iverson at 4:45 p.m. in Room 312-1 of the State Capitol.

ROLL CALL: Representatives Asay and Krueger were excused; all other members were present.

SENATE BILL 273: Sen. Gene Thayer, District 19, introduced SB 273, which he sponsored at the request of the department of natural resources and conservation. Sen. Thayer explained that the department administers various water projects around the state, and has requested a statutory clarification of its authority to enter contracts regarding those water projects. SB 273 sets out specific authority and contract requirements, he said.

PROPOSERS: Larry Fasbender, director of the department of natural resources and conservation, spoke in favor of the bill. He said SB 273 will aid the department in carrying out its responsibilities regarding state-owned water projects.

There were no further proponents, and no opponents to SB 273.

Rep. Miles asked for an explanation of the new language in Section 3, part (2), which states that the provisions of that part do not apply to contracts for state water projects if the proposed construction costs are less than \$25,000, and was told that the Legislative Council recommended that the language be added to make the bill consistent with existing law.

Rep. Harp asked how many state-owned water projects are begun each year that cost more than \$25,000, and how many are begun that cost less than \$25,000. Mr. Fasbender said he had no figures in that regard, but Rick Bondy, a DRNC employee, said that approximately six projects are begun each year in each of those categories.

Sen. Thayer closed by asking for the committee's endorsement, and noted that the bill met no opposition in the Senate.

Rep. O'Hara agreed to carry SB 273 on the floor of the House.

SENATE BILL 369: Senate Bill 369 was introduced by the sponsor, Sen. Ted Neuman, District 21. Sen. Neuman explained that the bill is known as the "Dam Safety Act," and revises current statutes relating to the operation and maintenance of dams and reservoirs in the state.

Sen. Neuman told the committee that under current Montana law, if a dam fails, the operator of the dam may be held personally liable for any injury or loss of life that occur . However, that operator does not have the benefit of regular inspection by qualified state personnel to make certain the dam is safe, said Sen. Neuman. Under HB 369, clear regulations governing the frequency and nature of dam inspections are set forth, and the state assumes responsibility for the safety of dam and reservoir operations. Sen. Neuman told the committee that HB 369 provides a "workable and clearly defined system of dam safety."

Sen. Neuman said the key definitions included in the bill are those in Section 2, parts (4) and (9), which define the size of dams to be covered and what constitutes a "high-hazard dam."

Sen. Neuman outlined the obvious need for a dam safety program to prevent loss of property and life, and noted that under federal law, the Soil Conservation Service will no longer be able to provide assistance to states without a dam safety act. Without SB 369, he said, Montana will lose its cost-share benefits from the SCS. A copy of his testimony is attached as Exhibit 1.

PROPOSERS:

Ken Kelly, of the Montana Water Development Association, rose in support of SB 369. He said it is vital that Montana have a dam policy, and that SB 369 provides an excellent framework. He presented informational material compiled by the Cooperative Extension Service at Montana State University, attached as Exhibits 2 and 3, and a letter of support from the state conservationist, attached as Exhibit 4.

Ted Doney, an attorney speaking for the Montana Water Development Association, said he helped draft SB 369, which was modeled after previous house bills that had been killed in earlier sessions. SB 369 is superior to those bills, he said. He noted that SB 369 limits the liability of the dam owner or operator in case of failure. He explained that if an operator receives state approval after an inspection, the state, and not the operator, should bear the cost of failure.

Rodger Foster, a consulting engineer, told the committee that Montana has a strong stance for public safety in other legislation, but that stance has been absent in the issue of regulating dam safety. Existing law is reactive, and not preventive, he said. Routine inspection and maintenance

reduce emergency costs, he said. Mr. Foster went on to say that most dams fail as a result of lack of maintenance or other operational problems, and SB 369 would address that problem. The bill would not allow deferral of costs at the expense of public safety, he said.

Dave Donaldson, representing the Montana Association of Conservation Districts, said that group supports SB 369, but said that water-spreading systems should be included in the bill. A copy of his testimony is attached as Exhibit 5.

Rick Bondy, representing the department of natural resources and conservation, said the department supports the bill.

There were no further proponents, and no opponents. The floor was opened to questions from committee.

Rep. Addy asked Mr. Doney to comment on whether SB 369 would in fact be weaker than existing law. Rep. Addy said it appeared that if someone wanted to file a complaint about an unsafe dam under the terms of SB 369, that complaining party would be required to post a bond in order for the state to investigate the problem. Further, there would be no penalty against the dam operator under SB 369, said Rep. Addy. Mr. Doney responded by saying that DNRC currently has no authority to require correction of dam problems, and that SB 369 is in fact more forceful than existing law because it allows for DNRC enforcement. He added that the weakening of liability on the part of the operator or owner is intentional, and that such liability should rest with the state.

Rep. Miles asked Mr. Doney why SB 369 exempts dams connected to mines, and Mr. Doney explained that those dams and reservoirs are already covered by more stringent existing regulations through the DSL permitting process.

Rep. O'Hara asked what problems existed with the earlier bills to which Mr. Doney referred and was told that those bills were criticized for infringing on private property rights.

In answer to a question from Rep. Grady, Mr. Bondy said that state-owned dams are inspected annually now, so there would be no additional fiscal impact for the inspection of those dams.

There were no further questions, and Sen. Neuman closed by asking the committee to approve SB 369 "in some form" because it is needed legislation.

EXECUTIVE ACTION:

SENATE BILL 369: Rep. Grady moved that SB 369 BE CONCURRED IN. Rep. Addy moved to amend the bill on page 12, line 4, by striking "insufficient" and inserting "sufficient." To leave the present wording, he said, allows a loophole that "you can drive a freight train through" in the event of litigation. Rep. Addy's amendment was unanimously approved.

Rep. Cobb asked for an explanation of the repealer clause on page 14. Mr. Bondy said the clause would reinstate a limited procedure exercised by county attorneys, but that the bill would not otherwise be affected if the repealer were not included.

Rep. Raney asked why Sen. Neuman would want the repealer included in the bill, and Mr. Bondy said some small dams might be ignored as a consequence of leaving out the clause.

Rep. Raney moved to repeal only section 85-15-103, and that motion was approved with Rep. Iverson voting no.

On O'Hara's motion of DO BE CONCURRED IN AS AMENDED, the bill was unanimously approved.

SENATE BILL 273: Researcher Hugh Zackheim contacted the Legislative Council immediately following the hearing on SB 273 to confirm the need for the new language inserted in Section 3, part (2) of SB 273. A representative of the Legislative Council said that new language was mistakenly added by the Council, and that the new section would make the bill do more than the department had intended. For that reason, Rep. Kadas moved to strike Section 3 of SB 273, and to amend Section 1, part (4) to make it consistent with the exclusion of Section 3.

Rep. O'Hara moved that SB 273 BE CONCURRED IN. Rep. Kadas's proposed amendments were approved unanimously. Rep. Addy moved that page 1, line 14 be amended to include the words "state-owned" preceding "works." That amendment was approved unanimously. Rep. O'Hara moved that SB 273 BE CONCURRED IN AS AMENDED, which passed unanimously.

HOUSE BILL 899: Rep. Kadas moved that the committee reconsider its action of March 15, at which time it recommended that HB 899 be passed as amended. He said he had conferred with the department of revenue regarding the amendment No. 9 that he had submitted to the committee, and which was approved on March 15. He submitted a substitute amendment for No. 9, along with additional amendments proposed

DAILY ROLL CALL

HOUSE NATURAL RESOURCES

COMMITTEE

49th LEGISLATIVE SESSION -- 1985

Date

3/10/85

NAME	PRESENT	ABSENT	EXCUSED
IVERSON, Dennis (Chairman)	X		
KADAS, Mike (Vice-Chairman)	X		
ADDY, Kelly	X		
ASAY, Tom	X		X
COBB, John	X		
DRISCOLL, Jerry	X		
GARCIA, Rodney	X		
GRADY, Edward	X		
HARP, John	X		
JONES, Tom	X		
KRUEGER, Kurt	X		X
MILES, Joan	X		
MOORE, Janet	X		
O'HARA, Jesse	X		
PETERSON, Mary Lou	X		
RANEY, Bob	X		
REAM, Bob	X		
SMITH, Clyde	X		

EXHIBIT 1
Ted Neuman
March 18, 1985

Mr. Chairman and members of the committee:

Senate Bill 369 is the Montana Dam Safety Act.

Under current law if a person constructs or operates an unsafe dam and the dam fails the individual responsible can be fined, sentenced to jail or if loss of life occurs, the responsible party for the dam may be charged with homicide.

"Unsafe" is however not defined under current law and a panel of experts must determine if a dam is "unsafe." Since there is no provision in current law for inspection the only way to find whether a dam is unsafe is through a complaint or a failure as has happened all too frequently in the last several years. Swift Dam and lower two Medicine Dam failed in 1964 killing 28 people. Browns Lake Dam in Beaverhead County failed in 1984. There were 36 unsafe dams in Montana in 1981. Since that time two dams have been cracked, five are recommended for repair and the others are still in need of repair.

SB 369 will put in place a more workable and clearly defined system of dam safety. The goals of SB 369 are these:

1. Provide minimum safety standards for a structure not covered by existing building and safety codes or laws. (Excludes Federal dams of Federally Licensed dams.)

2. Provide a long term program which assures safety through the life of a project. Program to consist of:

- a. Hazard (risk) classification system. Sec. 6
- b. Approval and Permit System. Sec. 7
- c. Inspection (review) Program. Sec. 8, 9, 10, 11

EX.1

Ted Neuman
March 18, 1985

- d. Emergency provisions. Sec. 12
- e. Enforcement. Sec. 15, 16, 17, 18, 19, 20
- 3. Provide protection to dam owners from liability except in negligence.
- 4. Provide relief to existing dam owners from potential litigation until rehabilitation plans can be made and funding found for present inadequate dams. (sec. 5, P6) (85-15-104)
(Sec. 14, P11)

Let me take you through the bill section by section.

Section 1 - Title Montana Dam Safety Act

Section 2 - Definitions

The key definitions are Dam - The Montana Dam Safety Act does not apply to Dam or Reservoir with an impounding capacity of less than 50 acre feet. High Hazard - means any dam or reservoir the failure of which would be likely to cause loss of life.

Section 3: Dams and reservoirs must be so constructed as to hold safety any water therein.

Section 4: Construction must be in a secure manner. SB 369 strikes the old language dealing with the authority of the department and the judicial review.

Section 5: SB 369 does not apply to dams inspected by FERC (federal energy regulatory commission) sections 6-20 do not apply to dams inspected by corps of engineers pursuant to PL 92-367 until July 1, 1990

Section 6: High Hazard dam determination by the department.

Section 7: Preparation and approval (of plans).

Section 8: Inspection and reports during construction. Part 5 is

Ted Neuman
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important in that if the construction does not conform to the permit the construction can be stopped until conformity is insured or the department alters the permit.

Section 9: Operating permits of high hazard dams or reservoirs.

The permit must set for (a) operation procedure (b) maintenance procedure for the dam and appurtenant works. (c) Emergency procedures and warning plans.

Section 10: Periodic inspections must be done at least every 5 yrs on High Hazard dams.

Section 11: Unscheduled inspections. This section deals with complaints and gives the department authority to take action if an immediate hazard to life or property is involved.

Section 12: Emergency repairs or breaching gives the department authority to take immediate and necessary action in an emergency if the owner fails to act and makes the owner responsible for the costs incurred in the emergency action.

Section 13: Limited jurisdiction of municipality or county.

Section 14: Liability of owners - Owner is not liable for discharges that do not exceed the 100 yr. flood or he may pass any inflow w/o diminution.

Section 15: Permit cancellation for non-compliance with High Hazard section of this law (sec's 6-11)

Sec. 16: Penalty for violation is a misdemeanor with maximum penalty of 6 months in jail or 500 fine or both.

Section 17: Deposit of Penalties and costs in general fund.

Section 18: Department may enter land after reasonable notice to carry out this act.

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Section 19: Legal assistance is required by the county attorney when requested by the department.

Section 20: The department may adopt rules to implement the Dam Safety Act.

In addition I have a letter from the State conservationist of the soil conservation service stating that SCS cost share and assistance will be phased out unless Montana adopts a dam safety law.

Thank you Mr. Chairman and members of the committee.

Ted Neuman

Senator - District 21

Does Montana Need a Dam Safety Program?

by Mary LaFrance, Extension Associate
and Verne House, Extension Economist

Dams play a vital role in Montana's economy. Montana is fifth in the nation in number of dams inventoried by the Corps of Engineers with 3,518 (not including another 3,000 small irrigation and stock dams). Montana has a minimal dam safety program.

Why the concern about dams?

People have lost their lives from dam failures in Montana, the most died when Swift Dam and Lower Two Medicine Lake Dam failed in 1964 killing 28 people.

Dams have failed in Montana, the most recent was Browns Lake Dam in Beaverhead County in June 1984.

Risks have increased where we have development below dams.

How safe are Montana's dams?

There were 36 dams declared unsafe in the state in 1981. One has since been repaired. Two have been breached. Recommendations for repair are being developed on five.

These dams are owned by various groups: state, county and municipal; water user organizations and private individuals. None are federal.

The unsafe dams are located throughout the state in 19 counties.

What is the dam safety program now?

Constructing and operating an unsafe dam is illegal in Montana.

The law does not define "safe." For example, what guidelines need to be met in order for a dam to be considered safe?

The law does state that anyone owning or operating a dam whose failure results in loss of life can be charged with homicide.

Almost anyone with a water permit can build a dam in Montana.

What are some alternatives?

Stay with the status quo.

Designate an agency or committee to seek more opinions.

Analyze alternatives in terms of their consequences.

Develop an education program on construction and maintenance.

Develop emergency warning plans.

Encourage insuring against risks.

Require insuring against risks.

Limit development in floodways.

Notify homeowners in floodways of risks.

Establish standards for dam construction.

Establish an advisory inspection service.

Establish a mandatory inspection service.

Appropriate funds to repair state dams.

Appropriate funds to help repair private dams.

Strive to coordinate all interested agencies.

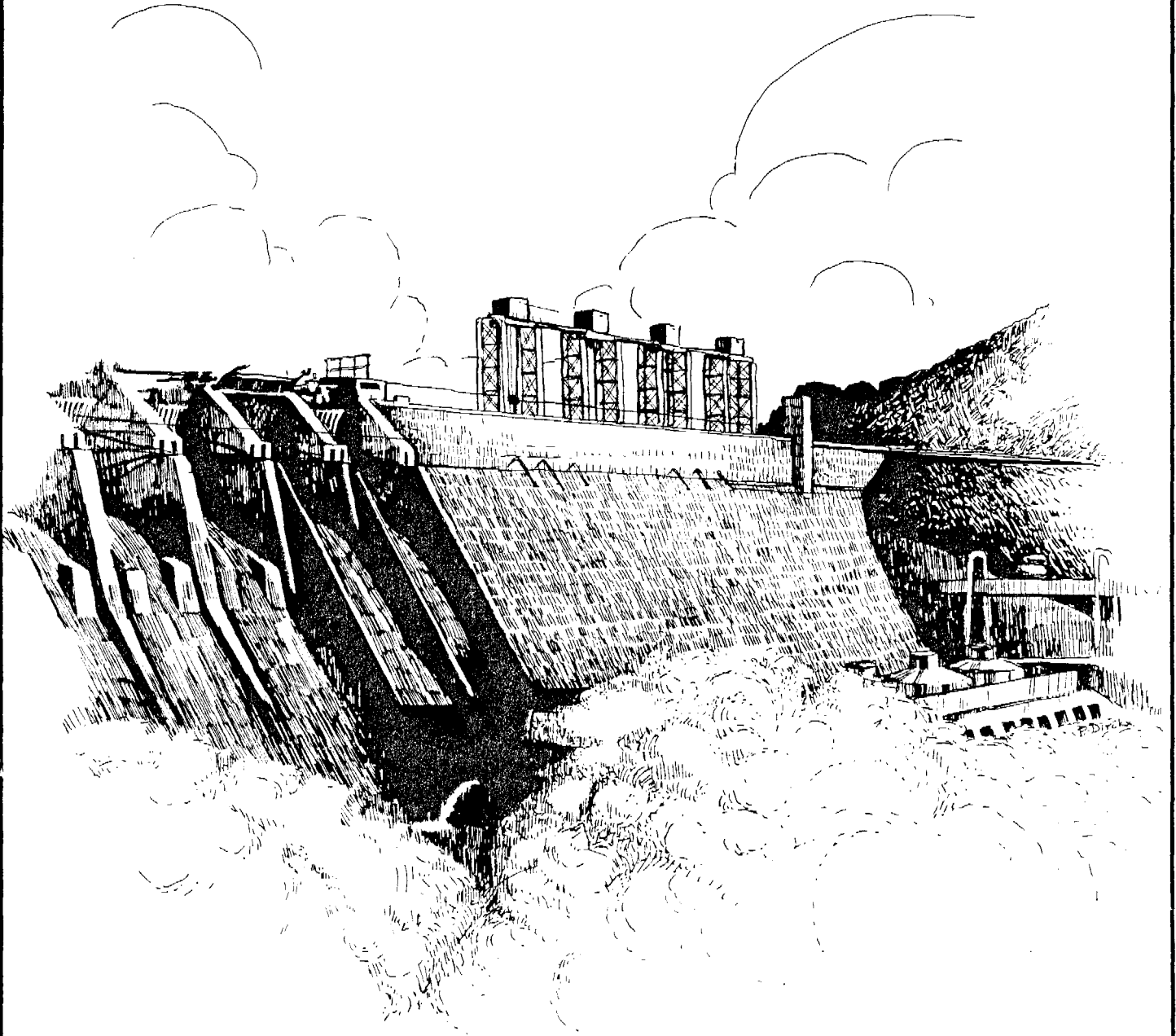
Some combination of the above and/or other ideas.

Your role?

For more information ask your County Extension Agent for CES Circular 1289, contact your SCS District Conservationist, or contact these agencies: Montana Department of Natural Resources and Conservation; Montana Department of Fish, Wildlife and Parks; the Regional Bureau of Reclamation office in Billings; the Regional Forest Service office in Missoula; the Corps of Engineers in Omaha; or the Federal Emergency Management Agency in Denver. It is up to you to choose how the risks of dam failure are to be managed.

Dam Safety

in Montana



Dam Safety in Montana

by Mary LaFrance

A History of Dams in Montana

The development of water resources has played a key role in the settling and growth of Montana. Throughout the state, particularly the semiarid regions, the lack of adequate rainfall, where and when needed, led early inhabitants to build small dams for storing water. As agricultural enterprises spread across the state and the population grew, the need for further water development was recognized. Dams and reservoirs were built to meet the needs of mining, irrigation, flood control, hydroelectric power generation, municipal and industrial water supplies, wildlife enhancement, and recreation. With assistance from the federal government, several large-scale irrigation and flood control projects were built, including Tiber Dam, Canyon Ferry Dam and Fort Peck. In addition, in an attempt to aid agriculture in the state, federal funds were made available to the former state Water Conservation Board, which enabled it to build numerous dams and reservoirs.

The confinement of water has been particularly important to farming, where irrigation is used to stabilize and increase income, and to livestock production in the state.

Mary LaFrance was associated with Extension economics for this project. Project director was Verne House, Extension public affairs specialist. Several state and federal agencies cooperated to supply data and reviews.

Together, these enterprises provide an indispensable source of income to Montana. In addition, many of the dams and reservoirs used by farming and livestock enterprises provide many other benefits, including recreation, wildlife habitat, electricity generation and flood control. Many people depend on these structures for the benefits they provide. Figure 1 presents a summary of dam ownership in the state. As Montana continues to grow, increasing demands will be placed on both state and private dams and reservoirs. Yet, people take these man-made structures for granted; however, these structures need to be properly maintained to safely meet the demands placed on them and provide long years of use.

The Issue of Dam Safety in Montana

Because dams play a vital role in the state, dam safety is an important issue facing all Montanans, not just dam owners, but anyone who benefits from dams. Unsafe dams can mean the loss of property, services and lives. Why is dam safety in Montana an issue at all? Because not all of Montana's dams are safe. In 1981, the United States Army Corp of Engineers completed an inventory of all the dams in the state that were 25 feet or more in height or impounded 50 acre-feet or more of water; there are 3,519 such dams. However, the Corp review excluded some 3,000 or more smaller dams. Of the 118 private, high-hazard dams actually inspected, 36 were determined to be unsafe.* Figure 2 presents a

*One of these, Cooney Dam in Carbon County, has since been rehabilitated at a cost of \$2.3 million. Of this, \$1.3 million was an interest-free loan from the Bureau of Reclamation.

Figure 1. Distribution of Dam Ownership in Montana

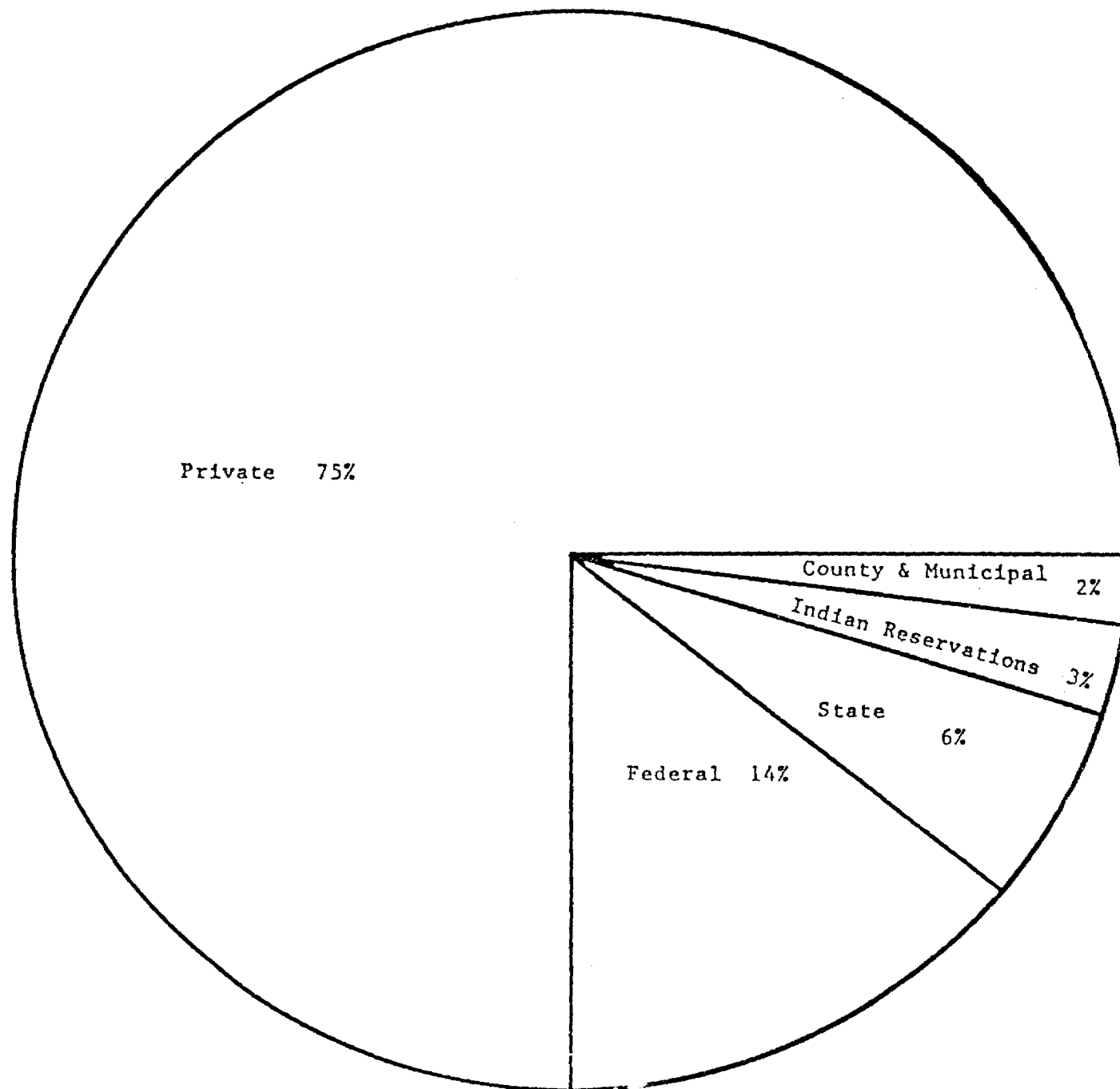
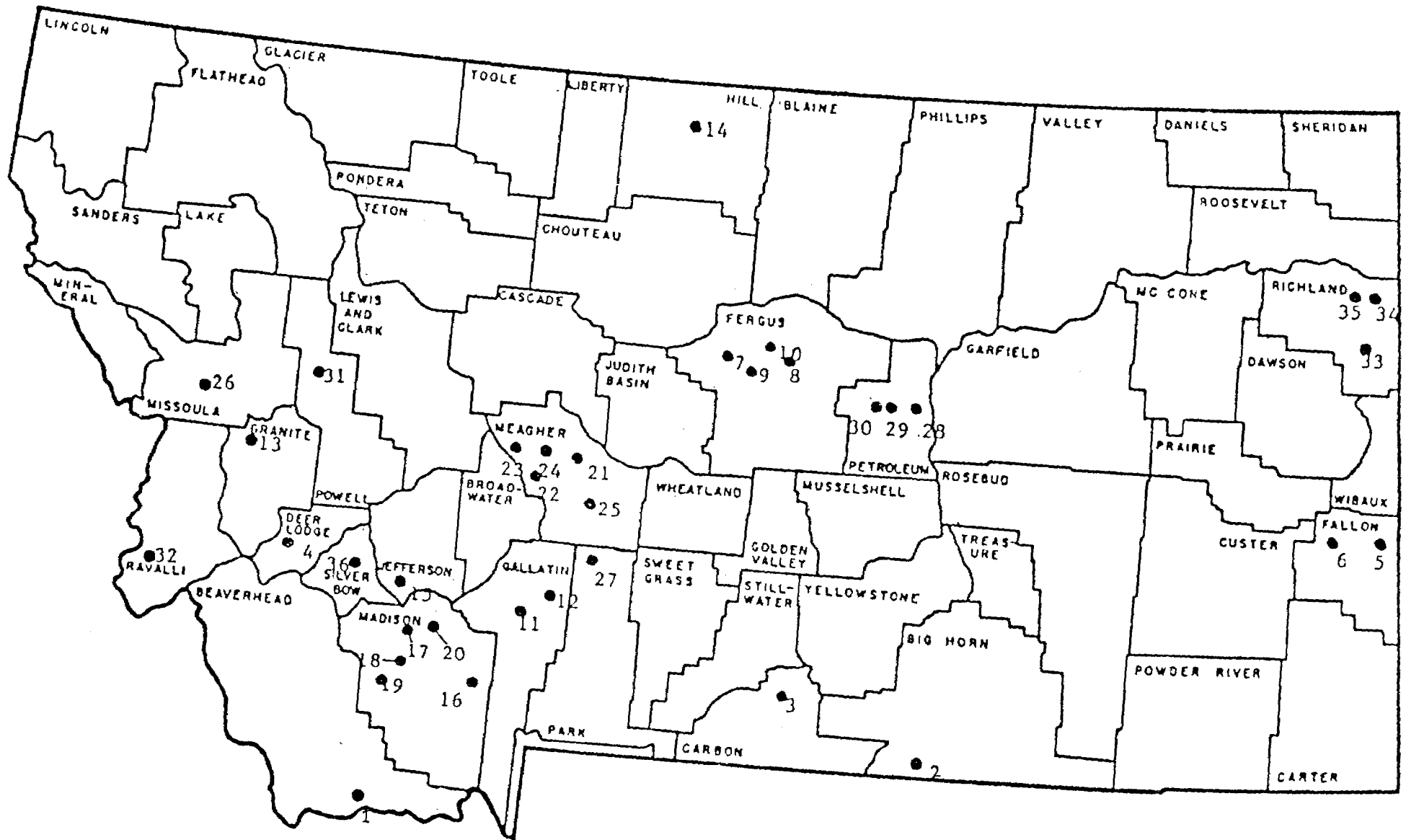


Figure 2. Location of Unsafe Dams in Montana



summary of the unsafe dams and their locations. However, because the inspection did not include all the dams of the state, and the state Department of Natural Resources and Conservation (DNRC) lacks adequate funds and manpower to keep accurate records of all state dams, there are probably many more with problems (DNRC, July 1984).

If a problem exists, whose is it? No law specifically states that owners of dams are liable, should their dams fail. However, under Montana codes, owner responsibility and liability seem to be implied (M.C.A., 1983, Title 85, Chapter 15). For private owners, this means that any problems that occur are their responsibility. On agency-owned dams, operated and maintained by water-user groups, the responsibility is probably shared. And for strictly state or agency-owned dams, as with private individuals, the responsibility is solely the state's or agency's. Therefore, although Montana law does not explicitly assign liability and responsibility to the owner or operator, the law explicitly makes the unsafe construction and operation of a dam or reservoir illegal. It also states that anyone owning and operating a dam that fails and causes a death can be charged with homicide.

Unsafe Dams

Some of the dams considered unsafe by the Corp of Engineers are: Lima Dam, owned by the Lima Water Users' Association; Tongue River Dam, owned by the DNRC; South Sandstone Creek, owned by the Department of Fish, Wildlife and Parks (FWP), and Wallace Creek Dam, owned by James Flansburg (DNRC, Unsafe Dam Summary,

undated).

Figure 3 presents a summary of unsafe dams by ownership. Unsafe means that the dam was designed in such a way that it could not pass half the flow expected to occur during severe flood conditions without overtopping. Overtopping would cause the dam to fail, and failure would result in loss of life. In addition, many more dams are considered unsafe because they have other problems. Often, individuals pile logs and earth across a stream to pond the water. Others may add a few feet of earth to the top of an existing dam to increase its storage capacity. In both instances, improper design and construction methods can lead to greater risk and magnitude of dam failure. However, Montana has no uniform standards or criteria concerning the safe design and construction of dams. Montana law requires that a dam be constructed safely, yet it does not specify guidelines that need to be met for a dam to be considered safe. In addition to poor design and construction, many dams in Montana are considered unsafe because improper operation and poor (or the absence of) maintenance have left them in a state of disrepair. Usually, repairs are not made because of high costs.

Dam Repair Costs

Repair costs are related to the extent of the damage and its location. For example, one critical area where damage and problems occur is the abutment, the interface between the natural surface and man-made surface. Regular maintenance-related repairs to earthen dams include clearing brush, timber and debris from in and around the dam and controlling burrowing animals.

Figure 3. Summary Statistics

	<u>Number of Dams</u>	<u>Percentage of Total</u>	<u>Number of Unsafe Dams</u>	<u>Percentage</u>
Private	2619	75 %	14	0.5 %
Federal	508	14 %	--	---
State	205	6 %	15	7.0 %
Indian Reservations	121	3 %	--	---
County and Municipal	65	2 %	7	11.0 %

These maintenance procedures are relatively inexpensive but are required frequently. Minor repairs, such as removing log jams from a spillway, can be inexpensive. More extensive repairs can be quite costly to the owner and often require the knowledge of a trained engineer. For example, repairing concrete deterioration at Deadman's Reservoir cost about \$6,000, while it cost about \$350,000 to repair the outlet tunnel at Painted Rocks Dam. Major spillway repairs can range from \$200,000 to several million (DNRC, August 1984).

Another type of repair cost, one beyond the control of the dam owner, is the cost of upgrading the dam because of land development that occurred below the dam after it was constructed. A dam that may have once been considered safe is now inadequate because of the increased risk involved, should the dam fail. Not only is there increased risk, but also increased liability to the owner. The cost of upgrading a dam --which usually requires rebuilding most of the structure-- could be prohibitive. Upgrading has been recommended for many dams in Montana because their hazard potential has increased. However, because of the high costs, dam owners have been reluctant. Some even may neglect the repair and maintenance of their dams because repair costs can be quite expensive and easy to defer, and the benefits of the repairs are often shared by other individuals. In the long run, however, repairs may cost much less than the damages incurred when a dam fails.

Dam Failure

What happens when a dam is not properly operated,

maintained, designed and constructed? The most obvious consequence is the failure of the structure and the loss of the use for which it was built. The degree and extent of damage depend on the size of the structure and the circumstances surrounding the failure. A small stock pond or irrigation pond may break with little or no consequence except for the loss of the structure itself. However, the loss of irrigation water for a season could mean extreme financial hardship for many farmers. For example, Haymaker Dam in Wheatland County washed out in 1978 because the spillway and embankment were not maintained. The dam supplied area farmers with irrigation water.

A larger dam failure could cause considerable loss of property, destruction of cropland, roads and utilities. Browns Lake Dam in Beaverhead County, which was used for irrigation and recreation, overtopped on June 20, 1984, washing out bridges and part of the road downstream. The estimated property damage was \$100,000. Before the failure, the dam was in very poor condition.

Many dams, if they failed, would cause loss of life. The failure of Pattengail Creek Dam in Beaverhead County in 1927 resulted in four known deaths and almost complete destruction of the towns of Dewey and Wise River. The failures of Swift Dam in Pondera County and Lower Two Medicine Lake Dam in Glacier County in 1964 resulted in 28 known deaths and millions of dollars in damages (DNRC, Dam Failures, 1981). In addition to the immediate problems, there are many far-reaching consequences, including loss of income, disruption of services and environmental

devastation. The risk of dam failure in Montana increases as more dams are built without supervision, more people move into areas below dams, and old, unattended dams continue to deteriorate.

Responsibility and Liability on Montana Dams

As the risk of dam failures increases or after a failure has occurred, the major question asked is, "Who is responsible?" In most instances, the owner of the dam is liable for damages. Under Montana law, the owner, whether a private individual, corporation, municipality, state or federal agency, is responsible for the safe construction and impoundment of water. If the dam fails, the owner is responsible for the damages, unless it can be shown that the failure was not the result of negligence (poor operation and maintenance). The owner's negligence in properly operating and maintaining a dam can lead to extremely hazardous conditions to downstream residents and property. Should a death result from the failure of a dam, under Montana law, the owner can be convicted of homicide (Montana Codes Annotated, 1983, Title 85, Chapter 15, Parts 1-3).

If downstream residents benefit from a dam or reservoir and face the greatest potential for harm if it fails, then they have a responsibility to make sure dams are safely maintained, particularly if downstream development took place long after the dam was constructed. However, under Montana law, downstream residents or property owners who feel they may be in danger if a dam is filled with water or if it seems likely to fail are only responsible for initiating a complaint with the DNRC. They have

no ownership or jurisdictional responsibilities, regardless of the benefits they receive from the dam and reservoir.

The dam owner continues to bear the risk of dam failure. However, some owners have minimized the risk and reduced the damages resulting from dam failures. Federal and state agencies are responsible for a number of dams in Montana. They have developed programs for inspection and maintenance, while individual dam owners and water-user associations usually just carry insurance (personal conversations with representatives from Farm Bureau Insurance, First West, Montana International, and Waite and Company, 1984).

Federal and State Involvement

For example, the Bureau of Reclamation in the Department of the Interior has authority under the Reclamation Safety of Dams Act (PL 95-578) to construct, restore and maintain its structures for safe purposes. There is an implicit responsibility that Bureau dams will be designed, constructed, operated and maintained safely. Although the responsibility for operation and maintenance of facilities is carried by the project water-user organizations, the Bureau carries out inspections and makes funds available for repairs on its dams when necessary. Each Bureau of Reclamation dam includes an operation plan that documents procedures to ensure proper operation and maintenance. It includes an emergency preparedness plan that outlines exactly what measures need to be taken to avoid loss of life and property damage. The Bureau's Safety Evaluation of Existing Dams program also provides comprehensive studies and inspections for existing

dam safety purposes. The various programs of the Bureau of Reclamation are updated to include new technologies and reflect experience (USDI-Bureau of Reclamation, 1984). Although the Bureau of Reclamation only performs these functions for its own projects, it often provides knowledge about dams and technical assistance to state agencies. In Montana, the Bureau has identified several dams that need modifications to bring them up to current safety standards. The Bureau also is preparing feasibility reports and scheduling construction work.

The Soil Conservation Service (SCS) has been involved with numerous dams through various conservation programs, including the Resource Conservation and Development program (under PL 703) and the Small Watershed Protection Act (PL 566). Water-user organizations and individual owners with dams constructed under these programs are responsible for the operation and maintenance of their dams. SCS assistance is provided mainly through the state conservation districts. Although the Soil Conservation Service is neither the owner nor the party responsible for dam maintenance, the agency takes an active role in these project dams (dams built under PL 566 and PL 703 programs). SCS often provides technical and financial assistance and assists the owners in inspections. New dams built under these programs include emergency action plans, while owners of existing dams receive technical assistance in preparing these plans upon request. The SCS reviews the hazard classification of its project dams at regular intervals to see which dams might need to be upgraded. For high and moderate-hazard dams constructed under

other programs, SCS provides an initial inspection upon request from the owner (USDA-SCS, 1984).

The U.S. Forest Service (USFS) has been involved in dam safety through its special-use permits. If an individual has a dam on Forest Service land, he or she must obtain a special-use permit. The USFS will inspect a permittee's dam to assure that the dam's operation and maintenance complies with the permit. If the inspection reveals that the dam is unsafe, the dam owner is notified. If the dam owner does not comply, the special-use permit can be revoked. The Forest Service is actively trying to tell its permit holders that they are liable and responsible for the inspection and maintenance of their dams, in addition to the need for emergency plans where warranted (USDA-USFS, 1984).

The Department of Fish, Wildlife and Parks (FWP) has responsibility for only a few dams in Montana. FWP dams provide recreational opportunities and wildlife habitat, and some provide irrigation benefits. Although the DNRC carries out occasional inspections and provides technical and some financial assistance on some of their dams, FWP takes an active role in promoting dam safety. Currently, the Department of Fish, Wildlife and Parks is attempting to correct the inadequacies of two dams, South Sandstone Creek Dam in Fallon County and Gartside Dam located in Richland County (FWP, July 1984).

The Department of Natural Resources and Conservation (DNRC) has the largest responsibility for the administration of water resources in the state. However, the Department is only directly responsible for 22 state-owned dams for which they carry out

inspections and provide technical and financial assistance to the water users. As time and funds allow, emergency action plans are being prepared for each dam. The DNRC attempts to maintain an inventory of all dams in the state, particularly the ones that are unsafe. But, because no inspection or reporting is required, the number and condition of dams in the state is uncertain. Currently, the DNRC is working on several rehabilitation feasibility studies for dams around the state, including Middle Creek Dam in Gallatin County, Tongue River Dam in Big Horn County, and Petrolia Dam in Petroleum County. The total budget received by the DNRC for dam safety in Montana is about \$250,000, which is most often used for rehabilitation feasibility studies. The estimated total cost of repairs for the 35 identified unsafe dams in the state is \$1 billion (DNRC, 1984 and FEMA, 1983).

Private Involvement

Water-user groups and individuals handle risk and liability in a different fashion than state and federal agencies. While some water-user dams fall under the jurisdiction of the various agencies for inspection, most dam owners carry insurance that covers the damages caused to others, should their dams fail. However, insurance policies do not require that dams be maintained in good condition to receive coverage. The cost and extent of insurance coverage varies according to the size of the project, how much public use the project receives and the financial capabilities of the dam owner.

Individuals, water-user organizations and agencies are taking various measures to reduce the risk or minimize the

damages of dam failure in Montana. However, there are limitations to their approaches. Insurance only provides against losses after a dam breaks. It does nothing to prevent such failures. Agency powers to enforce dam safety are fragmented, limited and often indirect. In addition, there is no consensus among agencies as to what set of standards or criteria are needed to make a dam safe. Even though there is no uniform approach to dam safety in Montana, each agency deals with the problem according to its own standards and criteria.

Risk Management Alternatives

If there is no uniform approach to dam safety, what are the available alternatives to effectively minimize the risk of dam failure and reduce the damages if a dam should fail? One of the alternatives is public education to increase the awareness of dam safety problems and the real risks involved with dam failures in Montana, not only for those who own dams, but for everyone who receives and enjoys the benefits of dams. Education might include an awareness of which dams are considered unsafe, where they are located, what the leading causes of dam failure are and what can be done to prevent them. Perhaps the most important aspects of public education would be informing Montanans that a problem exists and generating public discussion of the alternatives and consequences of possible remedies.

Dam safety legislation is another alternative. Legislation could mandate the responsibilities of state agencies and private parties in the design, construction and maintenance of dams, and require that specific guidelines and standards be followed.

Legislation to create a dam safety program might include a permit and certification program for dam construction and an inspection program to keep track of dam performance. The frequency of dam inspections, how safety standards should be enforced and how deficiencies should be corrected could be included in the program. Legislation might also make provisions for the education of dam owners about safety. Both Colorado and Wyoming provide manuals for dam owners that explain operation and maintenance, and how to recognize and handle problems associated with dams. North Dakota is preparing a manual for its dam owners. A dam safety program might also require emergency warning plans for dams of a certain height, reservoir capacity or proximity to populations.

Another alternative to minimize the risk of dam failure is effective emergency warning or preparedness plans. These plans allow people to prepare for emergencies that occur when a dam fails and take measures to reduce the losses. Emergency plans are based on inundation maps showing the route floodwater would take if a dam failed. They outline in detail what measures need to be taken to avoid loss of life and property damage, including who should be notified or evacuated.

Another alternative aimed at reducing the risk and damage of dam failure is flood plain management or zoning. The purpose of such planning would be to restrict development in areas of heaviest flooding while allowing development in areas receiving minimal inundation. Homes and businesses would be located outside high-danger areas.

Group insurance plans are another alternative. Although individual dam owners usually carry insurance policies, they bear the total cost of coverage. An alternative would be to design policies that spread the insurance cost of coverage for economic losses caused by dam failure over the entire group of dam owners in a particular area.

Conclusion

Many alternatives are available to minimize the risk and reduce the damages of dam failure. They include public education, legislation, emergency plans, zoning and insurance. But they are not alternatives unless people - Montanans - know that a problem exists and want to do something about it. Montana's dams are not forever; they have collapsed and will continue to do so without proper care. That a dam has withstood 50 years of service is not sufficient to predict its future. The risk of tragedy resulting from dam failure is constantly increasing. Something needs to be done before a tragedy occurs, not as the result of one.

REFERENCES

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Montana Department of Natural Resources and Conservation, personal conversation with Art Taylor, Water Resources Division, Engineering Bureau, regarding the total number of dams and their condition in Montana, Helena, Montana (July, 1984).

_____, Unsafe Dam Summary, undated. An unpublished memo listing the unsafe dams in Montana, according to the Corp of Engineers report.

_____, Private phone conversation with Art Taylor regarding the costs of repairs to state-owned dams (August, 1984).

_____, Dam Failures, 1981. The material on dam failures in Montana was taken from a letter addressed to Wayne Graham, Bureau of Reclamation, Denver, Colorado. The letter was sent by Richard L. Bondy, Chief, Engineering Bureau, DNRC (March 17, 1981).

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United States Department of Agriculture - Soil Conservation Service, personal conversation with Dave Jones, Environmental engineer, regarding SCS programs and their involvement in dam safety (July, 1984).

United States Department of Agriculture - United States Forest Service, personal conversation with Roger White, Regional Hydraulic Engineer, Northern Region, concerning USFS participation and responsibility in dam safety (July, 1984).

United States Department of the Interior - Bureau of Reclamation, personal conversation with Rod Ottenbreit and Howard Gunnerson, regarding the Bureau's dam safety program (July, 1984).

Personal conversations with representatives from Farm Bureau Insurance, First West, Montana International and Waite and Company (July, 1984).

UNSAFE DAM SUMMARY

#	Name	County	Owner
1	Lima	Beaverhead	Private water users assn.
2	Tongue River Dam	Big Horn	DNRC
3	Cooney (Rehabilitated 1982)	Carbon	DNRC
4	Storm Lake Dam	Deer Lodge	Private
5	Lower Baker Dam	Fallon	County
6	South Sandstone Creek	Fallon	DFWP
7	Big Casino Creek Dam	Fergus	Municipal
8	East Fork Dam	Fergus	Municipal
9	Hanson Creek Dam	Fergus	Municipal
10	Pike Creek Dam	Fergus	Municipal
11	Middle Creek Dam	Gallatin	DNRC
12	Mystic Lake Dam	Gallatin	Municipal
13	Lower Willow Creek Dam	Granite	Private Drainage Dist.
14	Beaver Creek Reservoir Dam	Hill	County
15	Delmoe Lake Dam	Jefferson	Private water users assn.
16	Big Sky Dam	Madison	Private
17	Cataract Creek Dam	Madison	DNRC
18	Lower Branham Dam	Madison	Private water company
19	Ruby Dam	Madison	DNRC
20	Willow Creek Dam	Madison	DNRC
21	Bair Dam	Meagher	DNRC
22	Hanson Reservoir Dam	Meagher	Private
23	Newlan Creek Dam	Meagher	Private water users assn.
24	North Fork Smith River Dam	Meagher	DNRC
25	Voldseth West Dam	Meagher	Private
26	Wallace Creek Dam	Missoula	Private
27	Cottonwood Dam	Park	DNRC
28	Petrolia	Petroleum	DNRC
29	Yellow Water Dike	Petroleum	DNRC
30	Yellow Water Main Dam	Petroleum	DNRC
31	Nevada Creek Dam	Ravalli	DNRC
32	Tin Cup Lake	Ravalli	Private water users assn.
33	Gartside	Richland	DFWP
34	Vaux No. 1	Richland	Private
35	Vaux No. 2	Richland	Private
36	Basin Creek Dam No. 2	Silver Bow	Private

SOURCE : Montana Department of Natural Resources and Conservation, Unsafe Dam Summary, undated.



United States
Department of
Agriculture

Soil
Conservation
Service

EXHIBIT 4
3/18/85
Federal Building, Room 443
10 East Babcock Street
Bozeman, MT 59715

February 4, 1985

K.M. Kelly
Executive Secretary
Montana Water Development Association
P.O. Box 5744
Helena, MT 59604

Dear Mr. Kelly:

As you requested, following is the information pertaining to SCS policy on dam safety. The following four paragraphs are national policy:

"SCS supports strong State dam-safety programs. A strong State dam-safety program is imperative because SCS lacks operation and maintenance (O&M) authority and does not have continuing responsibility for the nonfederal dams installed under SCS programs. It is SCS policy to complement and not compete with State dam safety programs."

"Each state conservationist is to assist the State in developing a strong dam safety program as needed."

"The owner of a dam is responsible for potential hazards created by the dam. The States are responsible for safeguarding the lives and property of their citizens. SCS is responsible for making sure that the assistance it provides for dams is technically sound and meets applicable state regulations and criteria."

"Each state conservationist is to establish needed working arrangements with the State for SCS assistance in maintaining a strong State dam-safety program. It is recognized that a few years may be required for some States to implement such a program. State conservationists are to consider progress being made by their respective states in determining whether or not to continue technical and financial assistance for the installation of inventory-type dams."

SCS in Montana is prepared to institute a policy of phasing out assistance on dams if no progress is made by the State during the 1985 legislative session in instituting an acceptable dam safety program. Our policy will be: "In 1986, SCS will no longer assist in planning new dams, but will continue to provide design, repair, rehabilitation, and construction inspection assistance. In 1987 SCS will no longer provide design assistance on new construction, but will continue to provide repair, rehabilitation and construction



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K.M. Kelly, February 4, 1985

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inspection assistance on dams for which SCS provided initial engineering assistance. In 1988 SCS will no longer provide any technical assistance to any dam except where a prior written agreement exists committing such assistance.

Sincerely,

 acting
Glen H. Loomis
State Conservationist

WITNESS STATEMENT

NAME Dave Donaldson BILL NO. SB369
ADDRESS 7 Edwards, Helena, MT DATE 3.18.85
WHOM DO YOU REPRESENT? Montana Association of Conservation
Districts
SUPPORT ✓ OPPOSE _____ AMEND _____

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

Comments:

The Montana Association of Conservation Districts has shown concern at the last annual meeting for Dam Safety. We feel that SB369 is a good vehicle for addressing the dam safety issue. We do have one concern. We feel that spreader dams or water spreading systems may be included in the "dam" definition. A water spreading system may be 1' deep and still have more than 50 acre feet in them.

We would like to ask for your support for SB369

Thank you
Dave Donaldson

VISITORS' REGISTER

NATURAL RESOURCES COMMITTEEBILL NO. SB 369DATE 3/18/85SPONSOR Senator Neuman

NAME (please print)	RESIDENCE	SUPPORT	OPPOSE
<u>RICHARD L. BONDY</u>	<u>HELENA</u>	<u>✓</u>	
<u>KIM KELLY</u>	<u>Helena</u>	<u>✓</u>	
<u>Tracy Fasler</u>	<u>Helena</u>	<u>✓</u>	
<u>Dave Donaldson</u>	<u>Helena</u>	<u>✓</u>	

IF YOU CARE TO WRITE COMMENTS, ASK SECRETARY FOR WITNESS STATEMENT FORM.

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.